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Dust Control

Description

Dust is generated when vegetation is removed and soil is exposed to wind. Light winds can pick up and transport silty soils, fine sands and clays. Course sands can also become erodible when winds are strong. Soil particles and any attached chemicals such as fertilizer and pesticides may settle out in surface waters. Airborne particles can scour leaves and tender shoots of vegetation. Clouds of dust can create a traffic hazard.

Dust control measures should be implemented to prevent the soil and attached pollutants from leaving the site. Acceptable dust control practices include watering, snow fencing (see the Construction Barriers BMP), using mulch (see the Mulching BMP), establishing vegetation, and using spray-on adhesives.

Pollutants Controlled and Impacts

Maintaining an effective dust control program helps keep the lighter soils (silt, clay) on the site and sustains the textural qualities necessary for good vegetative growth. It also prevents sediment and attached chemicals such as fertilizer and pesticides from entering surface waters.

Application

Land Use
Rural, urbanizing and transportation

Soil/Topography/Climate
Special attention needs to be given to dust control during the drought months of the year when the ground is dry. Less severe conditions usually exist during the fall and winter months when the ground is frozen or covered with snow.

When to Apply
Dust control measures should be applied any time dust is generated on a construction site or road.

Where to Apply
Apply this practice on any area subject to wind erosion; especially construction sites and roads.

Relationship With Other BMPs

Dust control is an alternative control measure for temporary and permanent vegetation on areas that are to be surfaced with impervious materials. Mulching is another method of dust control.

Specifications

1. Use seeding, mulching and sodding to cover bare soil and prevent dust. Follow specifications in the Seeding and Mulching or Sodding BMPs.

2. On larger areas, consider planting trees and shrubs as wind breaks. Follow specifications in the Trees, Shrubs and Ground Covers BMP.

3. Watering should be done at a rate which prevents dust but does not cause soil erosion.

4. Any snow fencing that is used should be installed following manufacturer's specifications.

5. Use spray-on adhesives according to Table 1, below. **We recommend using these adhesives only if other methods cannot be used. Many of these adhesives are messy, sticky and form fairly impenetrable surfaces.**

Table 1

Type of emulsion	Water dilution	Nozzle type	Apply Gal/Acre
Anionic asphalt emulsion	7:1	Coarse spray	1,200
Latex emulsion	12.5:1	Fine spray	235
Resin-in-water emulsion	4:1	Fine spray	300

Source: Excerpted from the Maryland Erosion and Sediment Control Planning and Design Manual.

Maintenance

To prevent dust from becoming a public nuisance and causing off-site damages, dust control should be ongoing during earth change activities.